

## **DWIGHT P.WILLIAMS Signature SERIES 1% x 3%**

## **SECTION 1: IDENTIFICATION**

1.1 GHS Product identifier: DWIGHT P.WILLIAMS Signature SERIES 1% x 3%

#### 1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Fire-extinguishing. For professional user only.

Uses advised against: All uses not specified in this section or in section 7.3

#### 1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

AUXQUIMIA, S.A.U.

Polígono Industrial de Baiña, parcela 23 33682 Baiña (Mieres) - Asturias - Spain

Phone.: +34 985 242 945 / +34 985 242 946 - Fax: +34 985 253 809

sds@perimeter-solutions.com

www.auxquimia.com

1.4 Emergency phone number: +34 985 242 945 / +34 985 242 946

#### SECTION 2: HAZARD(S) IDENTIFICATION

#### 2.1 Classification of the substance or mixture:

#### 29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200,

Eye Dam. 1: Serious eye damage, Category 1, H318 Skin Sens. 1: Sensitisation, skin, Category 1, H317

#### 2.2 Label elements:

#### 29 CFR 1910.1200:

#### Danger





#### Hazard statements:

Eye Dam. 1: H318 - Causes serious eye damage Skin Sens. 1: H317 - May cause an allergic skin reaction

#### **Precautionary statements:**

P261: Avoid breathing dust/fume/gas/mist/vapours/spray

P280: Wear protective gloves/protective clothing/eye protection/face protection

P302+P352: IF ON SKIN: Wash with plenty of soap and water

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310: Immediately call a poison center/doctor

 $P501: Dispose of contents \ and \ / \ or \ containers \ in \ accordance \ with \ regulations \ on \ hazardous \ waste \ or \ packaging \ and \ packaging \ waste \ respectively$ 

## Substances that contribute to the classification

 $N-(2-hydroxyethyl)-N-[2-[(1-oxooctyl)amino]ethyl]-\beta-alanine; Alkylglucoside C8; (carboxymethyl)dimethyl-3-[(1-oxododecyl)amino]propylammonium hydroxide$ 

#### 2.3 Other hazards which do not result in classification:

Non-applicable

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances:

Non-applicable

#### 3.2 Mixtures:

Chemical description: Aqueous solution of tensoactives

Components:



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#### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Remaining components are non-hazardous and/or present at amounts below reportable limits. Exact percentage values for components are proprietary in accordance with 29 CFR 1910.1200(i). Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

	Identification	Chemical name/Classification		Concentration
CAS:	112-34-5	2-(2-butoxyethoxy)ethanol Eye Irrit. 2: H319; Flam. Uq. 4: H227 - Warning	<b>(</b>	5 - <15 %
CAS:	107-21-1	Ethanediol Acute Tox. 4: H302 - Warning	<b>(</b>	2 - <7 %
CAS:	Non-applicable	Mixture of fluorosurfactants		2 - <6 %
CAS:	64265-45-8	N-(2-hydroxyethyl)-N-[2-[(1-oxooctyl)amino]ethyl]-β-alanine Eye Irrit. 2: H319; Skin Sens. 1: H317 - Warning	<b>(</b> )	0,5 - <5 %
CAS:	Non-applicable	Mixture of fluorotelomers		0,5 - <3 %
CAS:	Non-applicable	Alkylglucoside C8 Eye Dam. 1: H318 - Danger	<b>(i)</b>	0,5 - <2 %
CAS:	4292-10-8	(carboxymethyl)dimethyl-3-[(1-oxododecyl)amino]propylammonium hydroxide Eye Dam. 1: H318 - Danger	<b>(3)</b>	0,1 - <1 %
CAS:	11138-66-2	Xanthan gum		0,1 - <1 %

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16,

#### SECTION 4: FIRST-AID MEASURES

#### 4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

#### By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

#### By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

## By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

#### By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

## 4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

#### 4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

## SECTION 5: FIRE-FIGHTING MEASURES

#### 5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.



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## SECTION 5: FIRE-FIGHTING MEASURES (continued)

#### 5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

#### 5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

#### Additional provisions:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

#### 6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

#### 6.3 Methods and materials for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

#### 6.4 Reference to other sections:

See sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

#### 7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.:

32 °F

Maximum Temp.:

120,2 °F

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

#### 7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.



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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the work environment

There are no occupational exposure limits for the substances contained in the product

#### 8.2 Appropriate engineering controls:

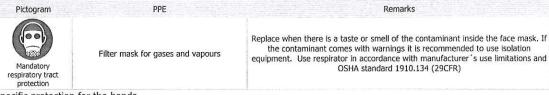
A.- Individual protection measures, such as personal protective equipment

If product is used at the concentration dosing conditions specified in the relevant instructions for use (section 15), personal protective equipment described in section 8.2 for UNDILUTED products will not be required.

Safe handling recommendations for undiluted product:

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

#### B.- Respiratory protection



## C.- Specific protection for the hands

Pictogram	PPE	Remarks
Mandatory hand protection	Protective gloves against minor risks	Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

## D.- Ocular and facial protection

Pictogram	PPE	Remarks
Mandatory face	Panoramic glasses against splash/projections.	Clean daily and disinfect periodically according to the manufacturer's instructions.  Use If there is a risk of splashing. Use this PPE in accordance with manufacturer's use limitations and OSHA standard 1910.133 (29CFR)

#### E.- Bodily protection

Pictogram	PPE.	Remarks
	Work clothing	Replace before any evidence of deterioration.
Anti-slip work shoes	Anti-slip work shoes	Replace before any evidence of deterioration.

## F.- Additional emergency measures

mergency measure	Standards	Emergency measure	Standards
Emergency shower	ANSI Z358-1 ISO 3864-1:2002	Eyewash stations	DIN 12 899 ISO 3864-1:2002



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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

## **Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 68 °F:

Appearance:

Color:

Odor:

Odour threshold:

Volatility:

Boiling point at atmospheric pressure:

Vapour pressure at 68 °F:

Vapour pressure at 122 °F:

Evaporation rate at 68 °F: Product description:

Density at 68 °F:

Relative density at 68 °F:

Dynamic viscosity at 68 °F:

Kinematic viscosity at 68 °F:

Kinematic viscosity at 104 °F:

Concentration:

pH:

Vapour density at 68 °F:

Partition coefficient n-octanol/water 68 °F:

Solubility in water at 68 °F: Solubility properties:

Decomposition temperature:

Melting point/freezing point:

Explosive properties:

Oxidising properties:

Flammability:

Flash Point:

Flammability (solid, gas):

Autoignition temperature:

Lower flammability limit:

Upper flammability limit:

**Explosive:** 

Lower explosive limit: Upper explosive limit:

9.2

Liquid

Viscous Yellowish

Characteristic

Non-applicable \*

Non-applicable \*

Non-applicable \*

Non-applicable \*

Non-applicable \*

1020 - 1060 kg/m<sup>3</sup>

Non-applicable \* 105 cP

Non-applicable \*

>20.5 cSt

Non-applicable \*

6.5 - 7.5

Non-applicable \*

Non-applicable \*

Non-applicable \*

Highly soluble

Non-applicable \*

Non-applicable \*

Non-applicable \*

Non-applicable \*

Non Flammable (>199.4 °F)

Non-applicable \*

Non-applicable \*

Non-applicable \*

Non-applicable \*

Non-applicable \* Non-applicable \*

Other information:

\*Not relevant due to the nature of the product, not providing information property of its hazards.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Surface tension at 68 °F:

Non-applicable \*

Refraction index:

Non-applicable \*

\*Not relevant due to the nature of the product, not providing information property of its hazards.

## SECTION 10: STABILITY AND REACTIVITY

#### 10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

#### 10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

#### 10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

#### 10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Precaution	Precaution	Not applicable

#### 10.5 Incompatible materials:

Acids	Water	Combustive materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong bases

## 10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

## SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

## Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

- A- Ingestion (acute effect):
  - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
  - Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- B- Inhalation (acute effect):
  - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
  - Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- C- Contact with the skin and the eyes (acute effect):
  - Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for skin contact. For more information see section 3,
  - Contact with the eyes: Produces serious eye damage after contact.
- D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

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## SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.
- F- Specific target organ toxicity (STOT) single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

- G- Specific target organ toxicity (STOT)-repeated exposure:
  - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
  - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### Other information:

Non-applicable

## Specific toxicology information on the substances:

Identification	,	cute toxicity	Genus
Alkylglucoside C8	LD50 oral	5100 mg/kg	Rat
CAS: Non-applicable	LD50 dermal	2380 mg/kg	Rat
	LC50 inhalation	Non-applicable	
Ethanediol	LD50 oral	500 mg/kg	Rat
CAS: 107-21-1	LD50 dermal	9530 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
(carboxymethyl)dimethyl-3-[(1-oxododecyl)amino]propylammonium hydroxide	LD50 oral	5100 mg/kg	Rat
CAS: 4292-10-8	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	

## SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

## 12.1 Ecotoxicity (aquatic and terrestrial, where available):

Identification		Acute toxicity	Species	Genus
2-(2-butoxyethoxy)ethanol	LC50	1300 mg/L (96 h)	Lepomis macrochirus	Fish
CAS: 112-34-5	EC50	2850 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	53 mg/L (192 h)	Microcystis aeruginosa	Algae
Ethanediol	LC50	53000 mg/L (96 h)	Pimephales promelas	Fish
CAS: 107-21-1	EC50	51000 mg/L (48 h)	Daphnia magna	Crustacean
	EC50.	24000 mg/L (168 h)	Selenastrum capricornutum	Algae
Alkylglucoside C8	LC50	310 mg/L (96 h)	Oncorhynchus mykiss	Fish
CAS: Non-applicable	EC50	Non-applicable		
	EC50	Non-applicable		
(carboxymethyl)dimethyl-3-[(1-oxododecyl)amino] propylammonium hydroxide	LC50	1.9 mg/L (96 h)	Cyprinus carpio	Fish
CAS: 4292-10-8	EC50	1.9 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		



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## SECTION 12: ECOLOGICAL INFORMATION (continued)

## 12,2 Persistence and degradability:

Identification	D	egradability	Blod	egradability
2-(2-butoxyethoxy)ethanol	BOD5	0.25 g O2/g	Concentration	100 mg/L
CAS: 112-34-5	COD	2.08 g O2/g	Period	28 days
	BOD5/COD	0.12	% Biodegradable	92 %
Ethanediol	BOD5	0.47 g O2/g	Concentration	100 mg/L
CAS: 107-21-1	COD	1.29 g O2/g	Period	14 days
	BOD5/COD	0.36	% Biodegradable	90 %
(carboxymethyl)dimethyl-3-[(1-oxododecyl)amino] propylammonium hydroxide	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 4292-10-8	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	95 %

#### 12.3 Bioaccumulative potential:

Identification Bio		paccumulation potential	
2-(2-butoxyethoxy)ethanol	BCF	0.46	
CAS: 112-34-5	Pow Log	0.56	
	Potential	Low	
Ethanediol	BCF	10	
CAS: 107-21-1	Pow Log	-1.36	
	Potential	Low	

## 12.4 Mobility in soil:

Identification	Absor	ption/desorption		Volatility
2-(2-butoxyethoxy)ethanol	Koc	48	Henry	7.2E-9 Pa·m³/mol
CAS: 112-34-5	Conclusion	Very High	Dry soil	No
	Surface tension	3.395E-2 N/m (77 °F)	Moist soil	No
Ethanediol	Koc	0	Henry	1.327E-1 Pa·m³/mol
CAS: 107-21-1	Conclusion	Very High	Dry soll	No
	Surface tension	4.989E-2 N/m (77 °F)	Moist soil	No
(carboxymethyl)dimethyl-3-[(1-oxododecyl)amino] propylammonium hydroxide	Koc	3063	Henry	Non-applicable
CAS: 4292-10-8	Conclusion	Low	Dry soil	Non-applicable
	Surface tension	Non-applicable	Moist soil	Non-applicable

## 12.5 Results of PBT and vPvB assessment:

Non-applicable

## 12.6 Other adverse effects:

Not described

## SECTION 13: DISPOSAL CONSIDERATIONS

## 13.1 Disposal methods:

## Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

## Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

## SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport.



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#### SECTION 15: REGULATORY INFORMATION

#### 15.1 Safety, health and environmental regulations specific for the product in question:

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-(2-butoxyethoxy)ethanol; Ethanediol

California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Ethanediol

The Toxic Substances Control Act (TSCA): 2-(2-butoxyethoxy)ethanol; Ethanediol; N-(2-hydroxyethyl)-N-[2-[(1-oxooctyl)amino]

ethyl]-β-alanine; Xanthan gum

Massachusetts RTK - Substance List: Ethanediol

New Jersey Worker and Community Right-to-Know Act: Ethanediol

New York RTK - Substance list: Ethanediol

Pennsylvania Worker and Community Right-to-Know Law: Ethanediol

NTP (National Toxicology Program): Non-applicable

Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Ethanediol (5000 pounds)

#### Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

#### Relevant instructions for use:

This product is intended for the production of low and medium expansion foam for fire extinguishing purposes. For this purpose it should be diluted in water and used with appropriate foam-generating equipment. Use at 1% on hydrocarbon and 3% on polar solvent fires.

#### Other legislation:

The Toxic Substances Control Act (TSCA)

SARA Title III - Community Right-to-Know Reporting Requirements (Sections 311-312)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313)

Emergency Planning and Community Right-to-Know Act (EPCRA) Reportable Quantities

## SECTION 16: OTHER INFORMATION

#### Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

#### Texts of the legislative phrases mentioned in section 2:

H318: Causes serious eye damage

H317: May cause an allergic skin reaction

## Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

#### 29 CFR 1910.1200:

Acute Tox. 4: H302 - Harmful if swallowed

Eye Dam. 1: H318 - Causes serious eye damage

Eye Irrit, 2: H319 - Causes serious eye irritation

Flam. Liq. 4: H227 - Combustible liquid

Skin Sens. 1: H317 - May cause an allergic skin reaction

#### Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

#### Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA),

## Abbreviations and acronyms:

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

CL50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient

Koc: Partition coefficient of organic carbon



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The information contained in this safety data sheet is based on sources, technical knowledge and current USA legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

END OF SAFETY DATA SHEET

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## **Safety Data Sheet**

This safety data sheet complies with the requirements of: 2012 OSHA Hazard Communication Standard (29CFR 1910.1200)

Product name ANSULITE 3x3 AR-AFFF LV (A334-LV)

## 1. Identification

1.1. Product Identifier

Product name

ANSULITE 3x3 AR-AFFF LV (A334-LV)

1.2. Other means of identification

Product code Synonyms 442865 None

**Chemical Family** 

No information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use

Fire extinguishing agent.

Uses advised against

Consumer use.

1.4. Details of the Supplier of the Safety Data Sheet

Company Name

Tyco Fire Protection Products

One Stanton Street Marinette, WI 54143-2542 Telephone: 715-735-7411

Contact point E-mail address Product Stewardship at 1-715-735-7411

psra@tycofp.com

1.5. Emergency Telephone Number

**Emergency telephone** 

CHEMTREC 001-800-424-9300 or 001-703-527-3887

## 2. Hazards Identification

## Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation - Category 2A

## 2.2. Label Elements

Signal Word WARNING

## **Hazard Statements**

Causes serious eye irritation



**Precautionary Statements** 



## Product name ANSULITE 3x3 AR-AFFF LV (A334-LV)

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Prevention

Wash face, hands and any exposed skin thoroughly after handling. Wear eye/face protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

## 2.3. Hazards Not Otherwise Classified (HNOC)

Not Applicable.

## 2.4. Other Information

## 3. Composition/information on Ingredients

#### 3.1. Mixture

The following component(s) in this product are considered hazardous under applicable OSHA(USA)

Chemical name	CAS No.	weight-%
2-(2-Butoxyethoxy)ethanol	112-34-5	7 - 13
D-Glucopyranoside, C9-C11 Oligomer	132778-08-6	1 - 5

## 4. First aid measures

4.1. Description of first aid measures

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin contact Wash skin with soap and water. Get medical attention if irritation develops and persists.

Inhalation Remove to fresh air. If breathing is difficult, give oxygen. (Get medical attention immediately

if symptoms occur.).

Ingestion Rinse mouth. Do not induce vomiting without medical advice. If swallowed, call a poison

control center or physician immediately.

## 4.2. Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms

No information available.

## 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to physicians

Treat symptomatically.

## 5. Fire-fighting measures

#### 5.1. Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

## 5.2. Unsuitable Extinguishing Media

None.

## 5.3. Specific Hazards Arising from the Chemical

None known.



## Product name ANSULITE 3x3 AR-AFFF LV (A334-LV)

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**Hazardous Combustion** 

**Products** 

Carbon oxides, Fluorinated oxides, Nitrogen oxides (NOx), Oxides of sulfur

5.4. Explosion Data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

5.5. Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. Accidental release measures

## 6.1. Personal precautions, protective equipment and emergency procedures

**Personal Precautions** 

Ensure adequate ventilation, especially in confined areas.

For emergency responders

Use personal protection recommended in Section 8.

#### 6.2. Environmental Precautions

**Environmental Precautions** 

Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological Information.

## 6.3. Methods and material for containment and cleaning up

**Methods for Containment** 

Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up

Pick up and transfer to properly labeled containers.

## 7. Handling and Storage

## 7.1. Precautions for Safe Handling

Advice on safe handling

Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and

safety practice.

## 7.2. Conditions for safe storage, including any incompatibilities

**Storage Conditions** 

Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials

Strong oxidizing agents. Strong acids. Strong bases.

## 8. Exposure Controls/Personal Protection

## 8.1. Control Parameters

Exposure auidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL
2-(2-Butoxyethoxy)ethanol 112-34-5	TWA: 10 ppm_inhalable fraction and vapor	9	(G)	_

ACGIH (American Conference of Governmental Industrial Hygienists) OSHA (Occupational Safety and Health Administration of the US Department of Labor) NIOSH IDLH Immediately Dangerous to Life or Health



## Product name ANSULITE 3x3 AR-AFFF LV (A334-LV)

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#### 8.2. Appropriate Engineering Controls

Engineering controls

Ensure adequate ventilation, especially in confined areas.

8.3. Individual protection measures, such as personal protective equipment

Eye/Face Protection

Avoid contact with eyes. Tight sealing safety goggles.

Skin and Body Protection

Wear protective gloves and protective clothing.

Respiratory Protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be

provided in accordance with current local regulations.

Ventilation

Use local exhaust or general dilution ventilation to control exposure with applicable limits

8.4. General hygiene considerations

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and Chemical Properties

## 9.1. Information on basic physical and chemical properties

**Physical State** 

Odor

**Odor Threshold** 

Liquid

Characteristic

No data available

Color

Remarks • Method

Light yellow

Property

pН Melting point/freezing point

Boiling point / boiling range

Flash Point **Evaporation Rate** 

Flammability (solid, gas)

Flammability limit in air

Upper flammability limit:

Lower flammability limit:

Vapor Pressure Vapor Density

Specific gravity

Water Solubility

Solubility in Other Solvents

Partition coefficient

**Autoignition Temperature** 

**Decomposition Temperature** 

Kinematic viscosity

VOC content (%)

Density

Values

No data available

100 °C / 212 °F

> 100 °C / > 212 °F

No data available

No data available No data available

No data available

No data available

No data available

15.42887

1.01

## 10. Stability and Reactivity



# Product name ANSULITE 3x3 / AR-AFFF LV (A334-LV)

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## 10.1. Chemical Stability

Stable under recommended storage conditions.

## 10.2. Reactivity

No data available

## 10.3. Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

#### 10.4. Conditions to Avoid

Extremes of temperature and direct sunlight.

## 10.5. Incompatible Materials

Strong oxidizing agents. Strong acids. Strong bases.

#### 10.6. Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NOx). Oxides of sulfur. Fluorinated oxides.

## 11. Toxicological Information

## 11.1. Information on Likely Routes of Exposure

## **Product information**

Inhalation

No data available.

**Eye Contact** 

Severely irritating to eyes.

Skin contact

No data available.

Ingestion

No data available.

## Component Information

**Acute Toxicity** 

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
2-(2-Butoxyethoxy)ethanol 112-34-5	= 5660 mg/kg (Rat)	= 2700 mg/kg ( Rabbit )	*

## 11.2. Information on Toxicological Effects

**Symptoms** 

No information available.

11.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure

Serious eye damage/eye irritation

Severely irritating to eyes. No information available.

Carcinogenicity
Reproductive Toxicity

No information available.

STOT - Single Exposure

No information available.

STOT - Repeated Exposure

No information available.

Aspiration Hazard

No information available.

## Product name ANSULITE 3x3 AR-AFFF LV (A334-LV)

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## 11.4. Numerical Measures of Toxicity - Product information

The following values are calculated based on chapter 3.1 of the GHS document ATEmix (oral) 22171 mg/kg
ATEmix (dermal) 23945 mg/kg

ATEmix (dermal)

## 12. Ecological Information

## 12.1. Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Crustacea
2-(2-Butoxyethoxy)ethanol 112-34-5	EC50 (96h) > 100 mg/L Desmodesmus subspicatus	LC50 (96h) static = 1300 mg/L Lepomis macrochirus	EC50 (48h) > 100 mg/L Daphnia magna EC50 (24h) = 2850 mg/L Daphnia magna
1,2-Propanediol 57-55-6	EC50 (96h) = 19000 mg/L Pseudokirchneriella subcapitata	LC50 (96h) static = 51600 mg/L Oncorhynchus mykiss LC50 (96h) static = 51400 mg/L Pimephales promelas LC50 (96h) = 710 mg/L Pimephales promelas LC50 (96h) static 41 - 47 mL/L Oncorhynchus mykiss	EC50 (48h) Static > 1000 mg/L Daphnia magna EC50 (24h) > 10000 mg/L Daphnia magna
n-Butanol 71-36-3	EC50 (96h) > 500 mg/L Desmodesmus subspicatus EC50 (72h) > 500 mg/L Desmodesmus subspicatus	LC50 (96h) static = 1910000 µg/L Pimephales promelas LC50 (96h) static 1730 - 1910 mg/L Pimephales promelas LC50 (96h) flow-through = 1740 mg/L Pimephales promelas LC50 (96h) static 100000 - 500000 µg/L Lepomis macrochirus	EC50 (48h) Static 1897 - 2072 mg/L Daphnia magna EC50 (48h) = 1983 mg/L Daphnia magna
Sodium chloride 7647-14-5	-	LC50 (96h) semi-static = 7050 mg/L Pimephales promelas LC50 (96h) static = 12946 mg/L Lepomis macrochirus LC50 (96h) static 6020 - 7070 mg/L Pimephales promelas LC50 (96h) flow-through 5560 - 6080 mg/L Lepomis macrochirus LC50 (96h) static 6420 - 6700 mg/L Pimephales promelas	
Glycerol 56-81-5	-	LC50 (96h) static 51 - 57 mL/L Oncorhynchus mykiss	EC50 (24h) > 500 mg/L Daphnia magna
Sodium Hydrogen Carbonate 144-55-8	EC50 (120h) = 650 mg/L Nitzschia linearis	LC50 (96h) static 8250 - 9000 mg/L Lepomis macrochirus	EC50 (48h) = 2350 mg/L Daphnia magna
Hexamethylenetetramine 100-97-0	-	LC50 (96h) flow-through 44600 - 55600 mg/L Pimephales promelas	EC50 (48h) 29868 - 43390 mg/L Daphnia magna
Methylene chloride 75-09-2	EC50 (72h) > 500 mg/L Pseudokirchneriella subcapitata EC50 (96h) > 500 mg/L Pseudokirchneriella subcapitata	LC50 (96h) static = 193 mg/L Lepomis macrochirus LC50 (96h) flow-through = 193 mg/L Lepomis macrochirus LC50 (96h) static 262 - 855 mg/L Pimephales promelas LC50 (96h) flow-through 140.8 - 277.8 mg/L Pimephales promelas	
1,3-Dichloropropene 542-75-6	EC50 (96h) 2.45 - 6.45 mg/L Pseudokirchneriella subcapitata EC50 (72h) 3.12 - 10.5 mg/L Pseudokirchneriella subcapitata	LC50 (96h) semi-static = 4.5 mg/L Oncorhynchus mykiss LC50 (96h) = 2 mg/L Oncorhynchus mykiss LC50 (96h) static 1.52 - 2.68 mg/L Pimephales promelas LC50 (96h) static 5.1 - 6.8 mg/L Lepomis macrochirus LC50 (96h) static 3.1	EC50 (48h) Static 0.063 - 0.129 mg/L Daphnia magna EC50 (48h) = 0.09 mg/L Daphnia magna



# Product name ANSULITE 3x3 / AR-AFFF LV (A334-LV)

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4,4'-bis-(sulfostyryl)-biphenyl disodium salt	EC50 (72h) = 10 mg/L Desmodesmus subspicatus EC50	4.9 mg/L Oncorhynchus mykiss LC50 (96h) flow-through 0.211 - 0.271 mg/L Pimephales promelas LC50 (96h) static = 76 mg/L Brachydanio rerio	EC50 (48h) = 1000 mg/L Daphnia magna
27344-41-8	(96h) 10.0 - 11.0 mg/L Desmodesmus subspicatus	<sup>10</sup>	

## 12.2. Persistence and Degradability

Chemical Oxygen Demand (mg/L)

Concentrate 330,000 3% Solution 12,000

Concentrate Biological Oxygen Demand (mg/L)

Biological Oxygen Demand (5 Day)	110000
%BOD/COD	33.33
Biological Oxygen Demand (10 Day)	190000
%BOD/COD	57.58
Biological Oxygen Demand (15 Day)	230000
%BOD/COD	69.7
Biological Oxygen Demand (20 Day)	240000
%BOD/COD	72.73

3% Solution Biological Oxygen Demand (mg/L)

Biological Oxygen Demand (5 Day)	2600
%BOD/COD	21.67
Biological Oxygen Demand (10 Day)	7400
%BOD/COD	61.67
Biological Oxygen Demand (15 Day)	8500
%BOD/COD	70.83
Biological Oxygen Demand (20 Day)	8900
%BOD/COD	74.17

## 12.3. Bioaccumulation

No information available.

## 12.4. Other Adverse Effects

No information available

## 13. Disposal Considerations

## 13.1. Waste Treatment Methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** 

Do not reuse container.

## 14. Transport Information



## Product name ANSULITE 3x3 AR-AFFF LV (A334-LV)

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NOT REGULATED DOT

NOT REGULATED TDG

1

NOT REGULATED MEX

NOT REGULATED ICAO (air)

NOT REGULATED **IATA** 

IMDG NOT REGULATED

## 15. Regulatory Information

## 15.1. International Inventories

Complies **TSCA** DSL/NDSL Does not comply Does not comply ENCS Does not comply **IECSC** Does not comply **KECL** Does not comply **PICCS** 

Complies AICS

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

## 15.2. US Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313	- Threshold Values %
2-(2-Butoxyethoxy)ethanol - 112-34-5	1.0	
SARA 311/312 Hazard Categories		
Acute Health Hazard	Yes	
Chronic health hazard	No	
Fire Hazard	No	
Sudden Release of Pressure Hazard	No	
Reactive Hazard	No	

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

## CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and



## / Product name ANSULITE 3x3 AR-AFFF LV (A334-LV)

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Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

## 15.3. US State Regulations

## California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
Perfluorooctanoic acid - 335-67-1	Developmental Toxicity
Methylene chloride - 75-09-2	Carcinogen
1,3-Dichloropropene - 542-75-6	Carcinogen

## U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
2-(2-Butoxyethoxy)ethanol 112-34-5	Х	**	X
1,2-Propanediol 57-55-6	Х		X
n-Butanol 71-36-3	Х	X	X
Hexamethylenetetramine 100-97-0	Х	₩.	>**
Methylene chloride 75-09-2	X	X	X
1,3-Dichloropropene 542-75-6	X	X	Х

## 16. Other information, including date of preparation of the last revision

NFPA

Health Hazards 1

Flammability 1

Instability 0

Physical and chemical

properties -

HMIS

Health Hazards 1

Flammability 1

Physical Hazards 0

Personal Protection X

Revision date 17-Jan-2019

Revision note SDS sections updated, 12.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet** 



## **Safety Data Sheet**

This safety data sheet complies with the requirements of: WHIMS 2015

Product name

ANSULITE 3% AFFF (AFC3B)

## 1. Identification of the Substance/Preparation and of the Company/Undertaking

**Product Identifier** 

Product name

ANSULITE 3% AFFF (AFC3B)

Other means of identification

Product code

443091

Synonyms

None

Recommended use of the chemical and restrictions on use

Recommended use

Fire extinguishing agent

Uses advised against

Consumer use

Details of the Supplier of the Safety Data Sheet

Initial Supplier Identifier

Johnson Controls Inc. Canadian Distribution Centre 20 Delta Park Blvd Brampton ON L6T 5E7

Telephone: 1-888-888-7838

**Emergency Telephone Number** 

Emergency telephone

CHEMTREC 001-800-424-9300 or 001-703-527-3887

## 2. Hazards Identification

Classification

Serious eye damage/eye irritation

Category 2A

Label Elements

WARNING

Hazard statements

Causes serious eye irritation



# Product name ANSULITE 3% AFFF (AFC3B)

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Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection

## Precautionary Statements - Response

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention

## OTHER INFORMATION

## 3. Composition/information on Ingredients

## Substance

Not Applicable.

## Mixture\_

Chemical name	CAS No.	weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
2-(2-Butoxyethoxy)ethan	112-34-5	0 - 10%	-	-
Lauryl Imino Propionate, Sodium Salt	14960-06-6	0 - 10%	-	
Polyfluorinated alkyl betaine	Trade secret	0 - 10%	197	27

## 4. First aid measures

## Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance.

Inhalation

Remove to fresh air.

Revision date 21-May-2018 HGHS



## Product name ANSULITE 3% AFFF (AFC3B)

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Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and

persists.

Skin contact

Wash skin with soap and water.

Ingestion

Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

Self-protection of the first aider

Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms

Burning sensation.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to physicians

Treat symptomatically.

## 5. Fire-fighting measures

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment.

Unsuitable extinguishing media

Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the

chemical

No information available.

**Hazardous Combustion Products** 

Carbon oxides. Fluorinated oxides. Nitrogen oxides (NOx). Oxides of sulfur.

**Explosion Data** 

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge

Special protective equipment for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Other Information

Refer to protective measures listed in Sections 7 and 8.

**Environmental Precautions** 

**Environmental precautions** 

See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up



# Product name ANSULITE 3% AFFF (AFC3B)

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Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Pick up and transfer to properly labeled containers.

Prevention of secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

## 7. Handling and Storage

## Precautions for Safe Handling

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

## Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. Exposure Controls/Personal Protection

#### Control Parameters

#### **Exposure Limits**

Chemical name	Alberta	British Columbia	Ontario TWA	Quebec
2-(2-Butoxyethoxy)ethan			TWA: 10 ppm	
112-34-5	8 8			

#### OTHER INFORMATION

Non'e known.

## **Appropriate Engineering Controls**

**Engineering controls** 

Ensure adequate ventilation, especially in confined areas.

## Individual protection measures, such as personal protective equipment

Eye/face protection

If splashes are likely to occur, wear safety glasses with side-shields.

Hand protection

Wear suitable gloves.

Skin and body protection

Wear suitable protective clothing.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do

not eat, drink or smoke when using this product.



## Product name ANSULITE 3% AFFF (AFC3B)

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## 9. Physical and Chemical Properties

Remarks • Method

No flash up to boiling point.

No data available No data available

No data available

No data available

No data available

No data available

No data available

No data available

No data available

No data available

No data available

No data available

No data available

No data available

No data available

Information on basic physical and chemical properties

**Physical State** 

Appearance

Liquid

Color

No data available Amber

Odor

Characteristic

Odor Threshold

No data available

Property

Melting point/freezing point

Boiling point / boiling range Flash Point

**Evaporation Rate** 

Flammability (solid, gas)

Flammability limit in air

Upper flammability limit: Lower flammability limit:

Vapor Pressure Vapor Density

Relative Density Water Solubility

Solubility in Other Solvents Partition coefficient **Autoignition Temperature Decomposition Temperature** 

Kinematic viscosity Dynamic viscosity

**Explosive properties** 

Oxidizing properties

OTHER INFORMATION

softening point Molecular Weight VOC content (%) Density

No data available No data available

10.0568 1.01 g/cm3

No data available

Values No data available No data available

100 °C / 212 °F No data available

No data available

No data available

No data available No data available

No data available

No data available No data available

No data available No data available No data available No data available

No data available No data available.

No data available.

## 10. Stability and Reactivity

Reactivity

**Bulk Density** 

No information available.

Chemical Stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to Avoid

None known based on information supplied.

Incompatible Materials

None known based on information supplied.

Hazardous decomposition products Carbon oxides. Nitrogen oxides (NOx). Oxides of sulfur. Fluorinated oxides.



# Product name ANSULITE 3% AFFF (AFC3B)

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## 11. Toxicological Information

## Information on Likely Routes of Exposure

**Product Information** 

Inhalation

Specific test data for the substance or mixture is not available. May cause irritation of

respiratory tract.

Eye contact

Specific test data for the substance or mixture is not available. Causes serious eye irritation.

(based on components). May cause redness, itching, and pain.

Skin contact

Specific test data for the substance or mixture is not available. May cause irritation.

Prolonged contact may cause redness and irritation.

Ingestion

Specific test data for the substance or mixture is not available. Ingestion may cause

gastrointestinal irritation, nausea, vomiting and diarrhea.

## Information on Toxicological Effects

Symptoms

May cause redness and tearing of the eyes.

## Numerical Measures of Toxicity

**Acute Toxicity** 

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)

25,600.00 mg/kg

ATEmix (dermal)

27,648.00 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
2-(2-Butoxyethoxy)ethanol 112-34-5	= 5660 mg/kg(Rat)	= 2700 mg/kg ( Rabbit )	-

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation

May cause skin irritation.

Serious eye damage/eye irritation

Classification based on data available for ingredients. Irritating to eyes.

Respiratory or skin sensitization

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

No information available.

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.



# / Product name ANSULITE 3% AFFF (AFC3B)

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Aspiration hazard

No information available.

## 12. Ecological Information

## **Ecotoxicity**

Concentrate

Hoomitate	Leave to the state of the state
Method	Biological Test Method: Acute Lethality Test Using Daphnia ssp. (EPS 1/RM/11)
Species	Daphnia magna
Endpoint type	LC50
Effective dose	928 mg/L
Exposure time	48h

Method	Biological Test Method: Acute Lethality Test Using Daphnia ssp. (EPS 1/RM/11)		
Species	Daphnia magna		
Endpoint type	EC50		
Effective dose	790 mg/L		
Exposure time	48h		

Method	Biological Test Method: Acute Lethality Test Using Rainbow Trout (EPS 1/RM/9)			
Species	Oncorhynchus mykiss (rainbow trout)			
Endpoint type	LC50			
Effective dose	5,320 mg/L			
Exposure time	96h			

3% Solution

Method Biological Test Method: Acute Lethality Test Using Daphnia ssp. (EPS 1/RM/11)

Species Daphnia magna

Endpoint type LC50

Effective dose 52,830 mg/L

Exposure time 48h

Method Biological Test Method: Acute Lethality Test Using Daphnia ssp. (EPS 1/RM/11)

Species Daphnia magna

Endpoint type EC50
Effective dose 36,990 mg/L

Exposure time 48h

Method Biological Test Method: Acute Lethality Test Using Rainbow Trout (EPS 1/RM/9)

Species Oncorhynchus mykiss (rainbow trout)

Endpoint type LC50 Effective dose 185,200 mg/L

Exposure time 96h

Method Biological Test Method: Acute Lethality Using Threespine Stickleback (Gasterosteus

aculeatus) (EPS 1/RM/10)

Species Gasterosteus aculeatus

Endpoint type LC50
Effective dose 80,000 mg/L
Exposure time 96h

Chemical name Algae/aquatic plants Fish Toxicity to Crustacea



# Product name ANSULITE 3% AFFF (AFC3B)

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			Microorganisms	
2-(2-Butoxyethoxy)ethan ol 112-34-5	EC50 (96h) > 100 mg/L Desmodesmus subspicatus	LC50 (96h) static = 1300 mg/L Lepomis macrochirus	-	EC50 (48h) > 100 mg/L Daphnia magna EC50 (24h) = 2850 mg/L Daphnia magna

## Persistence and Degradability

Chemical Oxygen Demand (mg/L)

Concentrate 3% Solution

230,000 7,000

Concentrate Biological Oxygen Demand (mg/L)

<20000 Biological Oxygen Demand (5 Day) 6.96 %BOD/COD 150000 Biological Oxygen Demand (10 Day) 65.22 %BOD/COD 170000 Biological Oxygen Demand (15 Day) 73.91 %BOD/COD Biological Oxygen Demand (20 Day) 190000 82.61 %BOD/COD

3% Solution Biological Oxygen Demand (mg/L)

Biological Oxygen Demand (5 Day) 390 %BOD/COD 5.57 4600 Biological Oxygen Demand (10 Day) 65.71 %BOD/COD Biological Oxygen Demand (15 Day) 5000 71.43 %BOD/COD Biological Oxygen Demand (20 Day) 5200 74.29 %BOD/COD

Bioaccumulation

No information available.

Other Adverse Effects

No information available.

## 13. Disposal Considerations

#### Waste Treatment Methods

Waste from residues/unused

products

Contaminated packaging

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation. Do not reuse empty containers.

## 14. Transport Information

TDG

NOT REGULATED

MEX

EN /

NOT REGULATED

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ICAO (air)

NOT REGULATED

IATA

NOT REGULATED

IMDG

NOT REGULATED

RID

NOT REGULATED

ADR

NOT REGULATED

ADN

NOT REGULATED

## 15. Regulatory Information

## REGULATORY INFORMATION

## International regulations

Ozone-depleting substances (ODS) Not Applicable

Persistent Organic Pollutants

Not Applicable

**Export Notification requirements** 

Not Applicable

International Inventories

TSCA

Complies

DSL/NDSL ENCS Complies Complies

IECSC

Complies

KECL

Complies
Does not comply

PICCS AICS

Complies

## Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

## 16. Other information, including date of preparation of the last revision

NFPA

Health Hazards 1

Flammability 0

Instability 0

Physical and chemical

properties -

**HMIS** 

Health Hazards 1

Flammability 0

Physical Hazards 0

Personal Protection X

Revision date 21-May-2018

Revision note SDS sections updated, 12.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information



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relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**